

REMARKS

As an initial matter, the Applicants thank the Examiner for his thorough review of the present application in which claims 7-12 are pending. In the outstanding office action, the Examiner has rejected claims 7-12 under §112, 2nd paragraph. The Examiner has also rejected the pending claims under §103(a) in view of several Japanese references. In response, the Applicants have amended claim 7 and, as discussed below, believe that they have overcome the Examiner's rejections. As such, the Applicants respectfully request reconsideration.

35 U.S.C. §112, 2nd paragraph

The Examiner has rejected claims independent claim 7 and dependent claims 8-12 as being indefinite under §112, as claim 7 contains the recitation of "particularly steel." In response, the Applicants have deleted this recitation from claim 7. The amendment was made for clarification purposes only.

35 U.S.C. §103(a)

The Examiner has rejected claims 7-12 under 35 U.S.C. §103(a) as being unpatentable over JP 7-108,355 (the "'355 patent) and further in view of JP 2000-52,006 (the '006 patent) and JP 3-161,153 (the "'153 patent"). The Applicants believe they have traversed the Examiner's §103 rejection through the arguments presented below.

To establish a *prima facie* case of obviousness of a claimed invention, each and every claim limitation must be taught or suggested by the prior art. *See* MPEP 2143.03. With respect to claim 7, the '006 patent fails to teach or suggest an "inwardly *salient* pole tooth" as recited in claim 7." (emphasis added). The remaining references, the '355 and '153 patents, add nothing to the teachings of the '006 patent with respect to the missing element.

More specifically, the '006 patent discloses magnetic poles 7 that have a tapered end and a narrow width. ('006 patent, FIG. 3). The poles 7 in the '006 patent are tapered to accommodate electrical coils 6 which are wound around each pole and extend to the very tip of the poles thus rendering them non-salient. With non-salient

poles, however, leakage flux is not an issue because the space between the poles, where flux might otherwise occur, is occupied by electrical conductors. Therefore, the taper does not serve to reduce leakage flux, it is simply necessary to accommodate the extended coils 6 due to the proximity and placement of each pole 7 relative to one another. ('006 patent, FIG. 3).

Applicants note that a prior art embodiment is shown in FIG. 6 of the '006 patent wherein a salient pole 7 is shown without taper. The leakage flux 13 from this truly salient pole 7 is quite considerable. Therefore, the '006 patent leads one skilled in the art to simply extend the winding to the very tip of a salient pole, thereby eliminating the protruding portion and converting the salient pole to a non-salient pole.

In contrast, claim 7 recites an "electrical winding wound around an inwardly *salient* pole tooth that terminates in a pole face placed facing said nozzle." Moreover, the claim specifies that each pole tooth has "at the end of its salient part, a lateral taper that increases the distance by which said pole faces are separated from one another." In view of the above, the tapered portion of each pole tooth is that which extends *beyond* the coil, hence the "salient" designation. This configuration is designed to reduce leakage flux. This solution is in no way described or even hinted at in the '006 patent. The '355 and '153 patents add nothing to the teachings of the '066 patent with respect to the missing limitation.

Claims 8-12, which depend from claim 7 and contain its limitations, are allowable for the above-cited reasons.


CONCLUSION

Applicant believes it has traversed each objection and rejection raised by the Examiner, it is hereby respectfully requested that Examiner withdraw the rejections of claims 7-12 and pass these claims to issue.

If necessary, the Commissioner is hereby authorized in this reply to charge payment or credit any overpayment to Deposit Account No. 13-0235 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Do not hesitate to call Applicants' attorneys at the number below if they may help expedite the prosecution of this application in any way.

Respectfully submitted,

By  _____
Kevin H. Vanderleeden
Registration No. 51,096
Attorney for Applicant(s)

McCORMICK, PAULDING & HUBER LLP
CityPlace II, 185 Asylum Street
Hartford, CT 06103-4102
Tel: (860) 549-5290
Fax: (413) 733-4543